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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/632,945	08/01/2003	Ted J. Cooper	T08012003	4972
7590	04/27/2005		EXAMINER	
Ted J. Cooper 746 Silver Tip Way Sunnyvale, CA 94086			ZHU, JOHN X	
			ART UNIT	PAPER NUMBER
			2858	

DATE MAILED: 04/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/632,945	COOPER ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	John Zhu	2858	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1-8 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-8 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 10 November 2004 is/are: a) accepted or b) objected to by the Examiner.
 

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    - a) All    b) Some \* c) None of:
      1. Certified copies of the priority documents have been received.
      2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
      3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to because Fig. 3 includes three separate figures of an 8-cell configuration. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### *Claim Objections*

2. Claims 1 and 5 are objected to as reciting abbreviation ESC. Complete name, "Electronic Speed Controller" should be used instead.

3. Claim 1 and 5 is objected to because of the following informalities: The claim language is not in the appropriate independent claim format of Preamble followed by Transition Phrase further followed by the Body of the claim. Appropriate correction is required. See MPEP § 608.01 (i).

The following changes to claim 1 are suggested, with similar changes applicable to claim 5: *A method to reconfigure r/c model vehicle battery systems comprising the steps of:*

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Goldschmidt et al. (5,240,787).

With regards to claims 1 and 5, Goldschmidt discloses a method and apparatus for the conversion of battery cells into desired configurations (Abstract, lines 1-3) including series and parallel arrangements (Column 4, lines 26-27). Goldschmidt further discloses a terminal that connects the battery configuration to an external device (Column 7, lines 66-68).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goldschmidt et al. (5,240,787) in view of Bushong et al. (5,686,811).

With regards to claims 2 and 6, Goldschmidt discloses all aspects of the claims except for the shared connection of different connectors. Bushong discloses a battery charger that allows the connection of various batteries together in the same casing for charging purposes (Abstract, lines 1-4) even though the batteries have different contacts. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Bushong into the battery reconfiguration system of Goldschmidt to allow different batteries to be reconfigured for the interest in conserving resources (Bushong, Column 1, lines 19-20).

8. Claims 3,4,7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goldschmidt et al. (5,240,787) in view of Schwartz et al. (6,157,167).

With regards to claims 3,4,7 and 8, Goldschmidt discloses all aspects of the claims except for an electrical interface and control signals from a control system that allows the discharging or recharging of individual or groups of battery cells. Schwartz discloses a battery charge control system that utilizes a microprocessor control system

(Column 2, line 61) to control the discharging or recharging of individual battery cells (Column 1, line 15). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the battery charge control system of Schwartz into a method of radio-controlled system with battery configuration for the purpose of establishing an equality of charge among all battery cells (Schwartz, Column 1, lines 25-26).

### ***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Lavender et al. (6,638,086 B2) discloses a configurable battery connector for accommodating different battery types. Got et al. (6,650,967 B1) discloses an automated battery configuration system for power systems. Cummings et al. (6,194,867 B1) discloses a battery charging apparatus for the charging of individual or multiple batteries. Messimer et al. (6,062,884) discloses an electrical adaptor that allows the connection of many different types of connectors. Rumble (4,626,052) discloses electrical connectors that allows the plurality of pin arrays for appropriate plug-in of devices. Mabuchi et al. (4,160,253) discloses a radio controlled, battery-operated model toy including an electric motor, a battery device, a receiver and a servo mechanism.

**Contact Information**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Zhu whose telephone number is (571)272-5920. The examiner can normally be reached on M-F, 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on (571)272-2180. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

John Zhu  
Examiner  
Art Unit 2858

JZ

V. Nguyen  
4/25/2005

VINCENT Q. NGUYEN  
PRIMARY EXAMINER